Chapter Three

Dead, Alive: Deconstruction, Biopolitics and Life Death

By Stefan Herbrechter

'Then, what is life? I cried' – (Shelley, 'The Triumph of Life', l. 544)

The Virus Is All the Rage

Viruses are fascinating because they are unclassifiable. They are, strictly speaking, neither alive
nor dead. They are somehow in between micro-*organism* and *dead* matter, a biological entity
without its own metabolism, a *parasite* that needs a host to develop a form of life. Like a
supplement that *grafts* itself onto its host organism it *rewrites* its genetic *programme*, for better
or for worse. It is a major factor in biological evolution, maybe even its cause, its beginning and
its end. As one standard textbook of microbiology states:

> a virus is a noncellular particle that must infect a host cell, where it reproduces… Viruses
> are ubiquitous, infecting every taxonomic group of organisms, including bacteria,
> eukaryotes, and archaea… Some viruses introduce copies of their own genomes into the
> host's genome, a process that can mediate evolution of the host genome. Indeed, studies of
> molecular evolution reveal that viral genomes are the ancestral source of about a tenth of
> the human genome.[1]

The virus and its virality have also become powerful *metaphors* in postmodernist and
posthumanist theory, especially since the virus not only transgresses the boundary between life
and death, but also between life and technology, especially under the condition of digitalisation
where computer viruses function analogically to biological ones,[2] namely by recoding patterns of
information through 'sabotage', as Brigitte Weingart explains.[3] It is the virus's ability to *learn* or
imitate the code or 'language' of its host that constitutes its subversive potential, its danger in
circumventing and 'fooling' the host body's immune system, sometimes to a point where this
immune system turns against itself (i.e. in an 'autoimmunitarian' reaction).[4] It is therefore no
coincidence that the subversive power of the virus has served as an analogy for subversive
thought, especially thought of the kind that turns against established forms of classification while

itself remaining or claiming to be unclassifiable. The names of Jacques Derrida and deconstruction inevitably spring to mind here, especially since Derrida himself dwells on this analogy or metaphor (Derridean deconstruction = virus):

> I often tell myself, and I must have written it somewhere – I am sure I wrote it somewhere – that all I have done, to summarize it very reductively, is dominated by the thought of a virus, what could be called a parasitology, a virology, the virus being many things.[5]

The virus 'being many things' thus refers to a number of hidden analogies between the virus and deconstruction – understood as a recoding of the language of (Western) metaphysics and its fundamental semantic *programme* (of which the opposition between *bios* and *technē* is one primary example). Both the virus and deconstruction problematize the distinction between life and death, between inside or outside. They undermine chronology and teleology (who was first, parasite or host?). They function according to a logic of the trace (undermining the notion of (self-)presence and (self-)identity).[6] No wonder the virus evokes such ambiguous feelings, between fear and danger, desire and anxiety. Due to its power of *contagion*, it threatens to undermine both physical and philosophical indemnity, both individual and social identity, as well as ideas of political autonomy and sovereignty. It transgresses physical and virtual boundaries, especially in the age of bio-informatics, bio-technology and bio-politics.[7]

This usage of the virus, and contagion more generally, under the condition of globalisation and digitalisation, can therefore no longer be seen as purely metaphorical (if it ever could).[8] Like Haraway's cyborg figure in the 1980s and 1990s,[9] the virus has become 'our' biopolitical ontology and COVID-19, in a sense, its logical consequence. So while the virologist Luis P. Villarreal posed the (then still) provocative question 'can viruses make us human?',[10] the current posthumanist climate raises the question about the human and 'its' future as such – either in the form of 'have we ever been human?', or 'who or what comes after the human?'

Bios: Biopolitics/biophilosophy/biohumanities/biomedia/bioart

The rise of biology and its intensifying co-implication with technology is one of the main characteristics of modernity. The argument about modernity being characterized by a fundamental shift towards 'biopolitics' – the idea that power exercised over life and death, life-death is becoming the main focus of politics, from Foucault, to Agamben, via Mbembe's notion

of 'necropolitics', and Esposito and Timothy Campbell's call for an 'affirmative' biopolitics[11] as an attempt to overcome the inherent death-drive of technology – too well-rehearsed by now to reiterate it here. Suffice it to say, maybe, that the COVID-19 pandemic happens in and to a global system of (neoliberal)[12] biopolitical governance (of life and death) that, as Clough and Willse explain: 'has turned the legitimacy of governance over to technical systems of compliance and efficiency that underwrite the relationship of the state and the economy with a biopolitics of war, terror, and surveillance'.[13]

The centrality and ubiquity of a politics that centres on the *meaning* of life, that subjects the question of life *itself* to fundamental technoscientific scrutiny and for which the *decoding* of life has become a primary source of economic development as well as the main future-oriented ontology of the species and life on this planet in general, cannot be overstated. It is legible in the pro-*life*-ration of *bios* (and its prefix bio-) from biopolitics to bioart, and in the 're-problematization of life: what is it that makes something *living* or *non-living* and what, after all, is *life* itself?'[14] The age of biopolitics and biotechnology – technobiopolitics one might say – is therefore a time when life becomes both the most precious resource (both at an individual and at a social, global, economic level) and the most 'precarious', to use Judith Butler's term, [15] where the human and nonhuman alike are subject to extreme biotechnological (self?) scrutiny while life *itself* is in danger of 'dehumanization', in the sense that humans are no longer the central life form, nor that biological life is the only life thinkable.[16]

The time of *bios* is therefore also already the time 'after life', as Eugene Thacker writes,[17] namely when biology and (digital) technology, or information, are integrated – what Thacker refers to as 'biomedia'[18] – and when 'life (*bios*) can no longer be separated from technology (*technē*), nature from artifice, the living from the non-living'.[19] What has been decisive within the process of techno-biopoliticization coincides with what Richard Doyle and others have called biology's 'molecularization, 'the molecule overtaking or territorializing the organism and getting plugged into the computer', thus giving birth to the 'postvital body or organism'.[20] Nicholas Rose also writes of 'molecularization' as the first of five 'mutations' that have occurred in contemporary biocapitalism and biopolitics.[21] While most humans still operate in everyday life at the level of the body, biopolitics and bioeconomics have become 'molecular' and operate at, what one might call the level of microbiopolitics.[22]

In a time when 'biology is not destiny but opportunity',[23] and when biology may be manipulated at a molecular (DNA-RNA, biomedical) level,[24] *synthetic* biology challenges classical distinctions like animal, vegetable and mineral, nature and technology, organic and inorganic. It also questions any idea of bodily or organismic integrity, as we have already seen above, as well as a clear distinction between life and death. Even though viruses like COVID-19 are strictly speaking no micro-*organisms* (see above; they have no cell structure or metabolism) what they share with bacteria (who are in fact their primary victims) is both their ancestrality and their vital importance for life and its evolution. They are thus also part of what might be called the 'microbial turn' that has occurred at the interface between the bio- or posthumanities and the life sciences, especially microbiology.[25]

It is no surprise therefore that the state of ontological co-implication of *bios*, *techne* and *polis* also has profound aesthetic consequences for investigating the meaning of life *itself*. The aim of *bio*art, in this context, according to Nicole Anderson, is 'to challenge and attempt to break down the respective boundaries between nature (that is, biology) and art; science and art; function and aesthetics, humans and animals, animals and plants, and so on'.[26] Bioart critically and aesthetically shadows the microbial turn and also provides an important interface of its own between (bio)philosophy, the (bio)humanities and what is going on in the life science lab. In this sense, it represents a critical intervention of biopolitics itself – 'tactical biopolitics' one might say[27] – which provides new perspectives on the 'molecular gaze'[28] and 'molecular aesthetics'.[29]

Biodeconstruction

The biocentrism of the biological age calls for 'biodeconstruction'. It is thus no surprise that in Derridean circles, concerned with the afterlife of deconstruction after Derrida's death, in 2007, as well as with the 'post-theoretical' backlash that has been gaining strength ever since, authors have been focusing on an understanding on deconstruction as a philosophy both *of* and *for* life. Derrida himself encouraged this focus, for example in his final interview 'Learning to live, finally', which he concludes by saying that:

> I would not want to encourage an interpretation that situates surviving on the side of death and the past rather than life and the future. No, deconstruction is always on the side of the yes, on the side of the affirmation of life. Everything I say—at least from 'Pas' (in

Parages) on—about survival as a complication of the opposition life/death proceeds in me from an unconditional affirmation of life.[30]

We will return to the question life affirmation and being on 'the side of life' below. The way Derrida and a number of prominent Derrideans after him seek to 'immunize' deconstruction against the reproach of it dying, and of it being – like most Western metaphysical philosophy (to use Montaigne's famous phrase and essay title) basically about 'learning to die'[31] – goes through a movement in 'ana-' one might say. It consists in showing deconstruction has always (already) been about life, from its *inception*. This, in turn, is connected to the structure of the *trace* and of its hauntological status of *survival*. To understand (Derridean) deconstruction as a merely *textual* approach to reading literature (*à la* Paul de Man, for example) can thus be said to miss the point that for Derrida *text* and *writing* are not to be taken *literally* but as *organic* (or necessary) metaphors.[32] Life (itself) in the Derridean sense of *survival* has the structure of a trace – it is neither present nor absent, but always deferred and differing from itself, like *différance*. In fact, life is (in) *différance*, a point that Jean-Luc Nancy makes in a comment on Juan-Manuel Garrido's proposal to use life as a synonym for 'différ*a*nce':[33] 'It is possible, I believe, to take hold of *différance* in life or as life'.[34] Within such a reinscribed understanding of life, death is not *outside* of life, rather 'it is that through which life relates to life, and thus to life as *différance*, or to life as structurally traversed by *différance*'.[35]

One of the earliest reminders of Derrida's long-standing, maybe even *originary* interest in biology can be found in Christopher Johnson's 'La vie, le vivant: biologie et autobiographie', where he recalls Derrida's early engagement with François Jacob's *The Logic of Life* and molecular biology in the 1970s, without however mentioning Derrida's (until quite recently) unpublished seminar *La Vie la mort* (1975-1976).[36] It is the publication of this seminar – parts of which had nevertheless appeared, for example, in *Otobiographies* (first 1982) and *Post Card* (first 1980) – that has brought on the (somewhat belated) 'turn to life' and 'biodeconstruction' as a new 'strain' in Derrida studies.[37] Johnson rightly stresses that one can find an interest in biology in Derrida in his earliest writings, especially in *Of Grammatology* (1967) which already discusses the notions of code, writing and programme as they were taking over the new cybernetic and biological (what today would be called 'life') sciences, which at the time was causing a general shift, as Jacob explains, from 'life' [*vie*] to 'the living' [*vivants*] and its boundaries.

This is of course not the place for a detailed commentary or close reading of Derrida's seminar – which has already received some very detailed analysis, even in its unpublished form, based on Derrida's manuscripts held at the University of California, Irvine.[38] As the title of the seminar suggests, Derrida is here interested in life-death *before* any syntax so to speak, outside of any dialectical relation between these two 'concepts', i.e. not life *versus* death (an opposition between dead *or* alive), nor life before, after or beyond death, life first, then death and so on, but a radical entanglement between life (and) death: *la-vie-la-mort*.[39] In typical Derridean fashion what follows in the seminar is a carefully woven string of arguments of intertwined readings of the 'usual suspects', one might say: Hegel, Nietzsche, Freud, Husserl, Heidegger, Blanchot, Canguilhem… and François Jacob's *La logique du vivant*. It is thus an argument that weaves together philosophy, psychoanalysis and biology. The most important aspect here is Derrida's focus on Jacob's (and the life science's) use of the notion of 'programme', 'writing' and 'text', which he uses to further illustrate the necessity and centrality of grammatology as a general science of writing, at a time when both biology and informatics increasingly rely on writing as an arch-metaphor in the form of ideas like 'rewriting the *book* of life', 'writing software pro*gram*mes', 'genetic and digital *code*', etc. In doing so, Derrida shows that the deconstruction of logo- and phono-centrism was never merely or purely a linguistic argument (often misunderstood as nihilistic 'textualism' or radical 'constructivism'). *Of Grammatology* and the idea that 'there is no outside-text' rather insist on and problematize the very fusion of life and text, text and tissue, genetic technological writing, trace and inscription. The entire argument rests on some passages in *Of Grammatology* whose implications outside philosophy, linguistics or literature have often been underestimated:[40]

> …we say 'writing' for all that gives rise to an inscription in general… It is also in this sense that the contemporary biologist speaks of writing and *pro-gram* in relation to the most elementary processes of information within the living cell. And, finally, whether it has essential limits or not, the entire field covered by the cybernetic *program* will be the field of writing. If the theory of cybernetics is by itself to oust all metaphysical concepts-including the concepts of soul, of life, of value, of choice, of memory-which until recently served to separate the machine from man, it must conserve the notion of writing, trace, grammè [written mark], or grapheme, until its own historico-metaphysical character is also exposed . Even before being determined as human (with all the distinctive characteristics

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that have always been attributed to man and the entire system of significations that they imply) or nonhuman, the grammè – or the grapheme – would thus name the element.[41]

The beginning of biodeconstruction, but also of postanthropocentric or critical posthumanism and animal studies, one might argue, can already be found in this passage, which spells out the centrality of the notion of inscription as a 'biotechnology' before or outside the distinction between human and nonhuman, thus challenging and deconstructing their opposition.[42] Vitale says the following on biodeconstruction's project or programme: 'We shall consider the investigation of *life* not only an issue of deconstruction but the latter's very matrix; we shall think *différance* as the irreducible and structural condition of the life of the living, and thus *trace* and *text* as the structures of the organization of life…'.[43] This follows Derrida in his critique of Jacob's and biology's more widely held 'metaphysical' view that arises out of 'preformationism', which understands life as 'germinal' process, programmed to unfold and merely (temporarily) interrupted by death (or death as a necessary supplement to life, associated with sexual reproduction).[44] It is precisely against this (vitalist) notion that Derrida sets his own concept of 'life death' and 'survival' [*survivance*].[45]

Survival and the originary technicity of life

As explains in "Learning to Live, Finally":

> [S]urvival is an originary concept that constitutes the very structure of what we call existence, *Dasein*, if you will. We are structurally survivors, marked by this structure of the trace and of the testament… This surviving is life beyond life, life more than life, and my discourse is not a discourse of death, but, on the contrary, the affirmation of a living being who prefers living and thus surviving to death, because survival is not simply that which remains but the most intense life possible.[46]

This 'logic of *survivance*' that underpins Derrida's deconstruction of life death could be summarized thus: for a metaphysical thinking of the relationship between life and death, death is the *end* of life, both in a temporal as well as a teleological sense,[47] which means that it develops a kind of *supplementary* structure[48] – it completes but also complements life. As a supplement it subverts from the start the idea of life's self-sufficiency and indemnity. Death is thus *inscribed* into life (physically as well as symbolically, philosophically) as a *trace*. It is, in fact, life's secret

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script, in the sense of Heidegger's 'Being-towards-death', which gives meaning to life, *in the first place*. Vicki Kirby summarizes this neatly in the following passage:

> When we think of division, we think of some*thing* that precedes its separation from itself. In conventional terms, we might think of a life lived, and then the cut of death that in the end divides that life… from life. If divisibility is originary, however, then we do not begin with the integrity of an entity that is *then* divided from itself. Strangely, Death would be internal to the very possibility of an entity's being itself, not simply at its birth, but throughout its ongoing re-production/othering of itself. If we begin with an algorithm of pluripotentiality in which the emergence of every individuation is an articulation of the whole system (general writing), then the system remains in constant touch with itself *because* it is divided from itself, because it is pure divisibility, pure contamination.[49]

It is this systemic (self)division that Derrida thinks of as *survivance*, as life surviving itself as an originary trace, so to speak, of death's inscription or its self-interruption. It is also this very logic of originary division of life that is associated with the idea of the *technicity* of the trace. Before Life [the metaphysical concept] and its separation into life in all its forms [*vivants*] and (their) death(s), there is necessarily a moment of inscription, a 'pro-gramming'.[50] However, this writing only remains as a structuring trace and since we are talking about writing (in a general, 'biotechnological', sense) we arrive at a point where the distinction between life and death, living and non-living, *bios* and *technē* and so on starts to disintegrate: we arrive at the very *technicity* of the trace in everything *alive*.[51]

The idea of originary technicity[52] has given rise to what might be called a deconstructive posthumanism, or maybe an 'inhumanism', that sees the technical inscription of life as a subversion of the animate-inanimate dichotomy that is used to distinguish between what is alive (animate, animal, animism) and what is machinic (inanimate, automatic, mechanical, artificial, inorganic and so on).[53] It is also the starting point of Bernard Stiegler's work on technics, which follows Derrida in applying the idea of originary technicity (of the human) to a rereading of paleoanthropology and the evolutionary process of 'hominization' through an *originary* co-implication of *anthropos* and *technē*.[54] While it is clearly possible (and maybe still strategically necessary) to stress the technicity of the trace to show that human evolution cannot be separated from technical evolution, and, so to counter the humanist phantasm of a *sovereign* or *immune* human body by privileging a purely utilitarian idea of technology – i.e. technology as merely a

tool or as a *prosthesis*[55] – Derrida's notion of the technicity of the trace at the beginning of or even *before* life, thought to its logical conclusion, of course also challenges any reading of the unfolding of (human and nonhuman) evolution as an unfolding of a kind of metaphysics of *technē*.[56] The difference between Stiegler and Derrida, rather than merely concerning 'the different evaluation of the emergence of technical difference in the history of life understood as the differing deferral of the genetic program', as Vitale states, or merely as 'two different ways' of 'thinking… technology as the other of life',[57] is maybe more accurately, and certainly more radically, described, by Deborah Goldgaber in the following terms: '[r]ather than marking a break with the organic, as on Stiegler's account, the history of grammē, of grammatization, implies the radical continuity between life and technē, a continuity in and across heterogeneous domains'.[58] This emphasises a thinking that stresses the idea of general writing as the 'history of life… as *différance*'.[59] And it is precisely this emphasis that allows Derrida to claim that deconstruction is affirmative of life (and not, as philosophy more generally maybe, on the side of death, in the sense of being a thanato-educational praxis, i.e. a 'learning how to die', as opposed to 'learning to live', finally).[60]

Anim(al)ism – Derrida, Cixous and the 'side' of life

It is somewhat surprising that Derrida's *H.C. For Life, That Is to Say…*,[61] has so far been more or less ignored in the discussion around biodeconstruction.[62] This is surprising in two respects: in *H.C. For Life*, Derrida is at pains to agree, although not entirely, with his life-long friend Hélène Cixous and her feminist materialist, radically affirmative, arguably proto-vitalist, take on deconstruction; second, because it contains a fascinating, if not fully developed, engagement with the question of animism and Freud's discussion of the notion of *Belebtheit* (livingness, *vivance*) in his chapter on 'Animism, Magic, The Omnipotence of Thought',[63] which clearly links back to Derrida's discussion of biologism and biocentrism in *La vie la mort*.[64]

    Derrida develops the theme of animism in Cixous's work[65] in connection with her use of the telephone in her novel *Jours de l'an*:

> She is on the telephone [*parle au telephone*]. But she does not speak *on the telephone*, as one says *to speak on the telephone*. No, she really speaks *to* the telephone; she speaks in its direction [*à son adresse*], addresses it, says: 'O telephone…' She even asks it for

forgiveness, for 'telephone' not only represents an animal life, even when there is an answering machine; telephone is somebody who must forgive her when she asks him to let her sleep, not to ring anymore. And we will see later why this is no zoo-anthropomorphic animism.[66]

The way Derrida takes up this recurring motif of anim(al)ism (or 'non-zoo-morphic animism') in Cixous's work is by way of critiquing Freud's analysis of 'the omnipotence of thought' in *Totem and Taboo*, in which he identifies what he calls some problematic 'snags' with regard to Freud's understanding of animism.[67] To summarize an extremely complex and dense deconstructive reading that combines Cixous's notion of life's 'omnipotence' and Freud's idea of animism as (a primitive, even originary, form of) narcissism, Derrida focuses on these aspects: Freud's exception granted to art in relation to animism; Freud's compulsion to introduce what he calls a 'pre-animism' (or 'animatism'); and Freud's gesture of 'denegation' regarding the 'necessity' of death.[68]

For the purpose of our argument here, we can focus on the second 'snag', where Derrida focuses on Freud's curious move which, on the one hand, acknowledges the logical necessity of a 'pre-animistic' phase, 'more ancient than the doctrine of spirits… which form the kernel of animism'[69] and which Freud calls 'animatism', but about which, on the other hand, Freud remains completely silent. Animatism – if it exists – Derrida concludes '[i]s something like a theory of living, of being-alive, of livingness [*vivance*], of universal being-for-life (*Lehre von der allgemeinen Belebtheit* [a notion that Derrida places within the proximity of Jankélévitch's 'universal hylozoism', and which of course would be the ultimate philosophical consequence of a 'biological' animism])'. It would thus be a kind of *originary* and most importantly, a 'pre-religious', 'non-spiritual' or non-metaphysical form of life-affirmation that must be prior to any known (including the most 'primitive') culture: 'a quasi-originary *Belebtheit* that must, if not present itself, at least announce itself to some pre-empirical or pre-positive experience'.[70] In short, what is sketched in these few very dense pages of Derrida's reading of primary narcissism via Cixous and via a return to Freud is nothing short of what may be called the beginning of a 'deconstruction of animism'. Or, in other words, a way of insisting on the inevitability and necessity of animism as an explanation for life in our and in any time, as well as a demonstration that, *at the same time*, one cannot, one *must* not take animism *literally*, as a *system of belief*, but rather as a life *force* that is more originary than life *itself*, which has nothing to do with an

intrinsic and problematic privileging of spiritualism of some *anima* (the animate, but also the animal), but implies instead that the idea of animalism should make us wary and maybe prompt a search for a *Belebtheit* that lies *before* or outside any anthropocentric remainders in the notion of animism.[71] In short, it would be the place in which the ancestrality of the virus would have to be located and thought.

And it is here also that bioart has its role to play, namely as a critical mediator in the time of pandemics. As a concluding example may serve Tagny Duff's work on 'viral tattoos', in which she uses Lentivirus (a synthetic retrovirus) 'as an artisitic medium and subject… to explore how perceptions and tensions around infection and contagion might be re-imagined and rearticulated by engaging with viral vectors'.[72] Even if the perceptions of COVID-19 are currently (and understandably) ruled by fear and anxiety it should also become clear that:

> Viruses remind us that there is something more than the 'code' of life based on the presupposition that life operates similarly to a computational algorithm, without falling into [a] vitalist position that privileges cellular life above all else.[73]

As a specific discourse and practice engaged in mediating the question of life death, bioart can have an 'ecological' function, in the context of contemporary biopolitics, as Cary Wolfe argues, and can thus become a locus of critique and resistance to the totalisation and technicisation of Life (itself).[74]

[1] Joan L. Slonczewski and John W: Foster, *Microbiology: An Evolving Science*, New York: Norton, 2011, p. 182-84.

[2] The following quotation from Slonczewski and Foster (pp. 183-4) clearly shows the inextricability of biological and digital viruses due to their shared *tertium comparationis* – information: 'Viral propagation exemplifies the central role of information in biological reproduction. The propagation of viruses is mimicked by the spread of 'computer viruses,' whose information 'infects' computer memory… When a biological virus infects a host cell, the information in its genome subverts the host cell machinery to produce multiple copies of the virus; the multiple copies then escape to infect more host cells. Similarly, when a computer virus infects a host computer, its program code subverts the host to produce multiple copies of the virus, which then escapes to infect more host computers. Computer viruses generate epidemics analogous to those of biological viruses. The virus's code can even be designed to 'mutate' in order to foil the 'immune system' of antivirus software.

The central notion in the viral logic here is 'programming', based on the idea of the 'gram', i.e. writing, which will be discussed later in connection with Derridean deconstruction. The basic claim that Derrida makes, as discussed below, is that the 'mimicking' (referred to in the quote above) cannot be contained. It is not merely the result of 'technological' developments (i.e. digital information) that is based on some prior 'natural' genetic phenomena. Re-programming or re-writing is more than 'just a metaphor' in this context. It is a *necessary* or 'dead' metaphor, a catachresis, one might say.'

For a more detailed medical account of the connection between parasite mimicry and autoimmunity see also Irun R. Cohen, 'Principles of Molecular Mimicry and Autoimmune Disease', in *Molecular Mimicry, Microbes, and Autoimmunity*, eds. Madeleine W. Cunningham and Robert S. Fujinami, Washington: ASM Press, 2000, pp. 17-26.

[3] Brigitte Weingart, 'Parasitäre Praktiken. Zur Topik des Viralen', in Claudia Benthien and Irmela Marei Krüger-Fürhoff, eds., *Über Grenzen: Limitation und Transgression in Literatur und Ästhetik*, Stuttgart: Metzler, 1999, p. 212.

[4] On the notion of autoimmunity in Derrida's work and in theory more generally see Stefan Herbrechter and Michelle Jamieson, eds., *Autoimmunities*, London: Routledge, 2018. See also Ed Cohen's ground-breaking work *A Body Worth Defending: Immunity, Biopolitics, and the Apotheosis of the Modern Body*, Durham: Duke University Press, 2010.

[5] Jacques Derrida, 'The Spatial Arts: An Interview with Jacques Derrida', in Peter Brunette and David Wills, eds., *Deconstruction and the Visual Arts: Art, Media, Architecture*, Cambridge: MIT Press, 1994, p. 12

[6] Cf. Weingart, pp. 217-18.

[7] See Peta Mitchell's illuminating essay 'Contagion, Virology, Autoimmunity: Derrida's Rhetoric of Contamination', *Parallax* 23.1 (2017): 77-93, and her *Contagious Metaphor*, London: Bloomsbury, 2012.

[8] This is Mitchell's argument in *Contagious Metaphor*.

[9] Donna Haraway established the connection between cyborg and micro-organic symbionts (of which the virus might be said to be an extreme case, if one accepts that parasitism can also be seen as a form of symbiosis, even though in some cases this leads to illness and death for either host or virus) in her contribution to the *Cyborg Handbook*, where she writes: 'cyborg figures have a way of transfecting, infecting, everything' (Haraway, 'Cyborgs and Symbionts: Living Together in the New World Order', *The Cyborg Handbook*, ed. Chris Hables Gray, New York: Routledge, 1995, pp. xi-xx; here p. xix). On Lynn Margulis's and Dorion Sagan's notion of 'symbiogenesis', that informs Haraway and the shift in current microbiological thinking more widely, see Margulis and Sagan, *Microcosmos: Four Billion Years of Evolution from Our Microbial Ancestors*, New York: Stone Books, 1986; *What Is Life?* Berkeley: University of California Press, 1995 and Dorion Sagan's *Cosmic Apprentice: Dispatches from the Edges of Science*, Minneapolis: University of Minnesota Press, 2013.

[10] Luis P. Villareal, 'Can Viruses Make Us Human?', *Proceedings of the American Philosophical Society* 148.3 (2003): 296-323.

[11] Cf. Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France (1978-1979)*, Houndmills: Palgrave Macmillan, 2008; Giorgio Agamben, *Homo sacer: Sovereign Power and Bare Life*, Stanford: Stanford University Press, 1998; Achile Mbembe, 'Necropolitics', *Public Culture* 15.1 (2003): 11-40; Roberto Esposito, *Terms of the Political: Community, Immunity, Biopolitics*, New York: Fordham University Press, 2013; Timothy C. Cambell, *Improper Life: Technology and Biopolitics from Heidegger to Agamben*, Minneapolis: University of Minnesota Press, 2011. See also my commentary on Campbell in 'Afterword: The Other Side of Life', *Posthumanism: A Critical Analysis*, London: Bloomsbury, 2013, pp. 207-213.

[12] The connection between biotechnology and neoliberal capitalism – i.e. 'the realms of biological (re)production and capital accumulation mov[ing] closer together' – is analysed in Melinda Cooper's well-known study *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era*, Seattle: University of Washington Press, 2008 (p. 3).

[13] Patricia Ticineto Clough and Craig Willse, 'Beyond Biopolitics', in *Beyond Biopolitics: Essays on the Governance of Life and Death*, eds. Clough and Willse, Durham: Duke University Press, 2011, p. ix.

[14] Sebastian Olma and Kostas Koukouzelis, 'Introduction: Life's (Re-)Emergences', *Theory, Culture and Society* (special issue on Life) 24.6 (2007): 2.

[15] Judith Butler, *Precarious Life: The Powers of Mourning and Violence*, London: Verso.

[16] On this point specifically see Scott Lash, 'Technological Forms of Life', *Theory, Culture and Society* 18.1 (2001): 105-120.

[17] Eugene Thacker, *After Life*, Chicago: University of Chicago Press, 2010.

[18] Eugene Thacker, *Biomedia*, Minneapolis: University of Minnesota Press, 2004.

[19] Eugene Thacker, 'Biomedia', in *Critical Terms for Media Studies*, eds. W.J.T. Mitchell and Mark B.N. Hansen, Chicago: University of Chicago Press, 2010, p. 117.

[20] Richard Doyle, *On Beyond Living: Rhetorical Transformations of the Life Sciences*, Stanford: Stanford University Press, 1997, p. 1, 8-17.

[21] Nicholas Rose, *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*, Princeton: Princeton University Press, 2007, pp. 5-6; the other 'mutations' being 'optimization', 'subjectification', 'somatic expertise' and 'economies of vitality' (6-7). For a prescient account of the implications of contemporary biopolitics for 'biophilsophy' in the humanities and the social sciences see Rose's, 'The Human Sciences in a Biological Age', *Theory, Culture and Society* 30.1 (2013): 3-34. On the notion of 'biohumanities' see my forthcoming essay in Daniele Sands, ed., *Bioethics and the Posthumanities*, London: Routledge, 2020.

[22] Cf. Stefan Herbrechter, 'Microbe', in *The Edinburgh Companion to Animal Studies*, eds. Lynn Turner, Undine Sellbach and Ron Broglio, Edinburgh: Edinburgh University Press, 2018, pp. 354-366.

[23] Rose, *The Politics of Life Itself*, p. 51.

[24] Cf. the overview the editors provide of the implications of this process of 'biomedicalization', in their 'Introduction', in Adele E. Clarke et al., eds., *Biomedicalization: Technoscience, Health, and Illness in the U.S.*, Durham: Duke University Press, pp. 1-44.

[25] Again, see Herbrechter, 'Microbe'. On 'microbiology' see e.g. Maureen A. O'Malley and John Dupré, 'Introduction: Towards a philosophy of microbiology', *Studies in History and Philosophy of Biological and Biomedical Sciences* 38 (2007): 775-779.

[26] Nicole Anderson, '(Auto)Immunity: The Deconstruction and Politics of Bio-art and Criticism', *Parallax* 16.4 (2010): 101.

[27] This is the title of a landmark collection which contains work that combines aspects of media theory, critical science studies and bioaesthetics, edited by Beatriz da Costa and Kavita Philip, *Tactical Biopolitics: Art, Activism, and Technoscience*, Cambridge: MIT Press, 2008.

[28] Cf. Suzanne Anker and Dorothy Nelkin, *The Molecular Gaze: Art in the Genetic Age*, New York: Cold Spring Harbor Laboratory Press, 2004.

[29] Peter Weibel and Ljiljana Fruk, eds., *Molecular Aesthetics*, Cambridge: MIT Press, 2013.

[30] Jacques Derrida, *Learning to Live Finally: The Last Interview*, an interview with Jean Birnbaum, trans. Pascale-Anne Brault and Michael Naas, Houndmills: Palgrave Macmillan, 2007, pp. 51-2. Maebh Long, in 'Derrida Interviewing Derrida: Autoimmunity and the Laws of the Interview', *Australian Humanities Review* 54 (2013): 103-119, establishes an interesting (and provocative) connection between autoimmunity as 'self-deconstruction' (of life) and Derrida's use of the genre of the interview as an attempt to 'immunise' deconstruction against its own deconstruction – and in doing so, ironically, jeopardizes deconstruction's own 'survival'.

[31] Montaigne, in his essay number twenty 'Que philosopher c'est apprendre à mourir', refers back to Cicero's idea that to philosophise is to prepare oneself for death; Michel de Montaigne, *Oeuvres completes*, Seuil (*L'Intégrale*): Paris, 1967, pp. 47-53.

[32] Cf. for example Martin Hägglund's characterisation of the 'life turn' in (post)theory in his 'The Trace of Time: A Critique of Vitalism', *Derrida Today* 9.1 (2016): 36: 'The revival of 'life' as a central category during the last decade of continental philosophy belongs to a more general turn away from questions of language and discourse, in the name of a return to the real, material, and the biological. If Saussure and linguistics once were an obligatory reference point, Darwin and evolutionary theory have increasingly come to occupy a similar position. Alongside this development, the status of deconstruction has been downgraded. Derrida's work is largely seen as limited to questions of language or as mortgaged to an ethical and religious piety.'

[33] Cf. Juan-Manuel Garrido, *Chances de la pensée – À partir de Jean-Luc Nancy*, Paris : Galilée, 2011, p. 15.

[34] Jean-Luc Nancy, 'The Different Life [*La vie différante*]', trans. Matthew H. Anderson, *CR: The New Centennial Review* 10.3 (2010): 56.

[35] Nancy, p. 58.

[36] Cf. Christopher Johnson, 'La vie, le vivant: biologie et autobiographie', in Marie-Louise Mallet, *L'animal autobiographique – Autour de Jacques Derrida*, Paris: Galilée, 1999, pp. 353-368. François Jacob, *The Logic of Life: A History of Heredity*, trans. Betty E. Spillmann, New York: Pantheon, 1973. Jacques Derrida, *La vie la mort - Séminaire (1975-1976)*, eds. Pascale-Anne Brault and Peggy Kamuf, Paris : Seuil, 2019; translated as *Life Death*, trans. Pascale-Anne Brault and Michael Naas, Chicago: University of Chicago Press, 2020.

[37] Biodeconstruction is Francesco Vitale's term. See his *Biodeconstruction: Jacques Derrida and the Life Sciences*, trans. Mauro Senatore, New York: SUNY Press, 2018. Vitale's work has 'spawned' extensive discussion, for example in the form of special journal issues dedicated to it by *Postmodern Culture* 28.3 (2018) and 29.1 (2018), and *CR: The New Centennial Review* 19.3 (2019). One could argue that other recent 'strains' in Derrida studies include a new materialist, an animal studies and an environmental or ecological one.

[38] There is Vicki Kirby's article 'Tracing Life: 'La Vie La Mort'', *CR: The New Centennial Review* 9.1 (2009): 107-126; Vitale's volume *Biodeconstruction*, 2018, which also contains large parts of the English translation of the seminar; and there is also Dawne McCance's *The Reproduction of Life Death: Derrida's La Vie La Mort*, New York: Fordham University Press, 2019, which provides a close reading and a critical and genealogical contextualisation of Derrida's seminar.

[39] This is what occupies the first part of the first session in Derrida's seminar; cf. Derrida, *La Vie la mort*, 19-26.

[40] Christopher Johnson's *System and Writing in the Philosophy of Jacques Derrida*, Cambridge: Cambridge University Press, 1993, is a notable and early exception; see also Sean Gaston's excellent

chapter 10 ('La vie la mort, la mort la vie') of *Derrida and Disinterest*, London: Continuum, 2005, pp. 109-125. Even though the validity of Derrida's notion of grammatology as a general science of writing has been challenged by Catherine Malabou (see her 'The End of Writing? Grammatology and Plasticity', *European Legacy* 12.4 (2007) 431-441), I would concur with Deborah Goldgaber that Derrida's notion of writing was always 'plastic' (i.e. 'nongraphic'), see Goldgaber, 'Programmed to Fail? On the Limits of Inscription and the generality of Writing', *Journal of Speculative Philosophy* 31.3 (2017): 444-456. See also Vitale, *Biodeconstruction*, p. 73, on this point.

[41] Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak, corrected ed., Baltimore: Johns Hopkins University Press, 1997, p. 9.

[42] Vicki Kirby's work is in many ways emblematic and also seminal in this respect; cf. her entry, 'Deconstruction', in *The Routledge Companion to Literature and Science*, eds. Bruce Clarke and Manuela Rossini, London: Routledge, 2011, pp. 287-297, which already spells out many of the aspects of Vitale's 'biodeconstruction', and establishes a link between deconstruction and feminist new materialism and the 'nonhuman turn' more generally. See also her 'Original Science: Nature Deconstructing Itself', *Derrida Today* 3.2 (2010): 201-220; *Quantum Anthropologies: Life at Large*, Durham: Duke University Press, 2011; and 'Grammatology: A Vital Science', *Derrida Today* 9.1 (2016): 47-67.

[43] Vitale, *Biodecontstruction*, p. 1; Vitale underlines life, trace and text in this passage. I would be inclined to underline 'matrix', and 'structures', too, for reasons that will become clear below.

[44] This is the subject of session 4 in Derrida's *La vie la mort*, pp. 109-131, and discussed in Vitale's *Biodeconstruction*, pp. 47-49. See also Deborah Goldhaber's review of *Biodeconstruction* in *Derrida Today* 13.1 (2020): 119-121. It is Derrida's aim to deconstruct this vitalist metaphysics by showing that death is a necessary inscription in life's 'programme'. Vitale illustrates this idea by referring to the scientific and philosophical discussion around the notion of *apoptosis* (or 'programmed cell death') in chapters five and six of his *Biodeconstruction*, where he uses Jean-Claude Ameisen's seminal, *La Sculpture du vivant – Le suicide cellulaire ou la mort créatrice*, Paris: Seuil, 1999. See also Astrid Schrader, 'Microbial Suicide: Towards a Less Anthropocentric Ontology of Life and Death', *Body and Society* 23.2 (2017): 48-74.

[45] See also Philippe Lynes's reading of *survivance* through what he calls 'general ecology', esp. chapter one of his *Futures of Life Death on Earth: Derrida's General Ecology*, London: Rowman & Littlefield, 2018, pp. 1-42.

[46] Derrida, *Learning to Live Finally*, pp. 51-52.

[47] The 'ends' of life, one might say, in many ways function analogous to the 'ends of man', in Derrida's eponymous essay in *Margins of Philosophy*, trans. Alan Bass, Chicago: University of Chicago Press, 1982, pp. 109-136, and the discussion in Jean-Luc Nancy and Philippe Lacoue-Labarthe, eds., *Les Fins de l'homme – à partir du travail de Jacques Derrida*, Paris: Galilée, 1981.

[48] Cf. Derrida, '…That Dangerous Supplement…', *Of Grammatology*, 141-164.

[49] Kirby, 'Tracing Life', p. 120.

[50] See note on apoptosis as programmed cell death, above.

[51] For an excellent summary see Laurent Milesi, 'Almost Nothing at the Beginning: The Technicity of the Trace in Deconstruction', in *Language Systems: After Prague Structuralism*, eds. Louis Armand and Pavel Černovsky, Prague: Litteraria Pragensia, 2007, pp. 22-41. See also Milesi's 'triptych' of genealogies on 'Derrida and Posthumanism' ('From Sign to Trace'; 'The Technicity of the Trace'; 'The Animality of the Trace', *Genealogy of the Posthuman*, available online at: criticalposthumanism.net/derridaandposthumanism (forthcoming).

[52] For an excellent overview see Arthur Bradley, *Originary Technicity: The Theory of Technology from Marx to Derrida*, Houndmills: Palgrave Macmillan, 2011; see also the conclusion to Richard Beardsworth's *Derrida and the Political*, London: Routledge, 1996, pp. 145-164.

[53] Apart from the obvious reference to Donna Haraway's early work focusing on the figure of the 'cyborg', there is, closer to Derridean deconstruction, David Wills's work, esp. his *Inanimation: Theories of Inorganic Life*, Minneapolis: University of Minnesota Press, 2016, which asks: 'if human life is originarily technological, then what particular artificial, automatic, inanimate, or inorganic forms of life might be identified 'within' it or produced by it?' (p. xi).

[54] See Bernard Stiegler, *Technics and Time*, 3 volumes, Stanford: Stanford University Press, 1998-2010; for a competing paleoanthropological account of the role of technology for hominization, namely through the notion of 'anthropotechnics', see Peter Sloterdijk, *You Must Change Your Life*, trans. Wieland Hoban, Cambridge: Polity, 2014.

[55] On the deconstructive 'supplementary' logic of the prosthetic see David Wills, *Prosthesis*, Stanford: Stanford University Press, 1995.

[56] The latest manifestation of which would be all forms of transhumanism, understood as the continuation of evolution through technology, going through a phase of accelerated and intensified interfacing between humans and machines, 'enhancement' and eventual 'replacement' and, ultimately, transcendence of the human bodily form (i.e. the 'animal', organic, biological human body) by some form of AI or superintelligence.

[57] Franceso 'Vitale, Making the Différance: Between Derrida and Stiegler', *Derrida Today* 13.1 (2020): 12.

[58] Deborah Goldgaber, 'Plasticity, Technicity, Writing', *Parallax* 25.2 (2019): 144.

[59] Goldgaber, *ibid*.

[60] It is also the starting point of a posthumanism 'without' technology (but maybe not without *technē*) which, arguably, would be the best interpretation today of Heidegger's famous claim that 'the essence of technology is by no means anything technological' (cf. Martin Heidegger, 'The Question Concerning Technology', *Basic Writings*, New York: Harper & Row, 1977, p. 287). See Stefan Herbrechter and Ivan Callus, 'Critical posthumanism or, the *inventio* of a posthumanism without technology', *Subject Matters* 3.2/4.1 (2007): 15-29.

[61] Jacques Derrida, *H.C. For Life, That Is to Say…*, trans. Laurent Milesi and Stefan Herbrechter, Stanford: Stanford University Press, 2006.

[62] With the exception of Michael Naas, who briefly refers to *H.C. For Life* in his 'Learning to Read 'Life Death' Finally: Francesco Vitale's Epigenetic Criticism', *CR: The New Centennial Review* 19.3 (2019): 31.

[63] Sigmund Freud, *Totem and Taboo, Standard Edition of the Complete Psychological Works*, trans. and ed. James Strachey, vol. 13, London: Hogarth press, 1955, pp. 75-99.

[64] For the first aspect of why it is impossible to be on the side of death even though Derrida cannot unreservedly countersign Cixous's radically affirmative stance of 'being on the side of life', please see my 'Theory…for life', in *Style in Theory: Between Literature and Philosophy*, eds. Ivan Callus, James Corby and Gloria Lauri-Lucente, London: Bloomsbury, 2013, pp. 303-321.

[65] See esp. *H.C. For Life*, pp. 76-77.

[66] Derrida, *H.C. For Life*, p. 105.

[67] *H.C. For Life*, pp. 110-120.

[68] *H.C. For Life*, pp. 108-120.

[69] *H.C. For Life*, p. 112.

[70] *H.C. For Life*, p. 114.

[71] This is maybe what David Wills refers to when he speaks of 'inanimation' as a 'nonspecific vitalization of matter' (cf. Wills, *Inanimation*, p. 17).

[72] Tagny Duff et al., 'How to Make Living Viral Tatoos', *Leonardo* 44.2 (2011): 164.

[73] Tagny Duff, 'Living Viral Tatoos? Crisis Alert!', *Total Art* 1.1. (2011): n.p.; available online at: http://totalartjournal.com/wp-content/uploads/2011/08/Duff_LivingViralTattoos_TotalArtJournal_Vol.1_No.1_Summer2011.pdf.

[74] Cf. Cary Wolfe, 'Ecologizing biopolitics, or, What is the 'bio' of bioart?', in *General Ecology: The New Ecological Paradigm*, eds. Erich Hörl and James Burton, London: Bloomsbury, 2017, pp. 217-234.